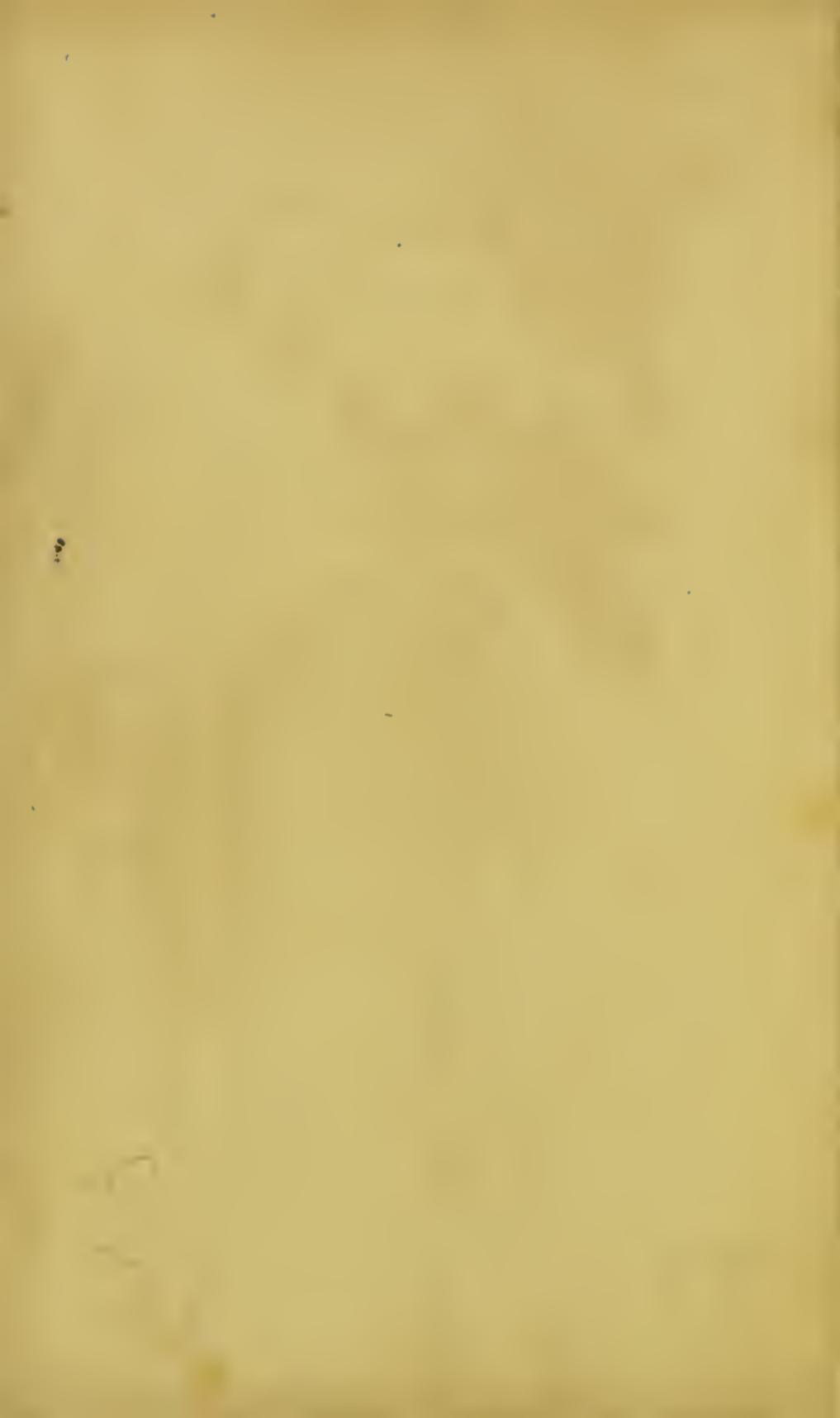


Heath's
UNFAILABLE COUNTER-DETECTOR
UNFAILABLE AT SIGHT.
By A MEMBER OF THE
UNITED STATES TREASURY DEPARTMENT.



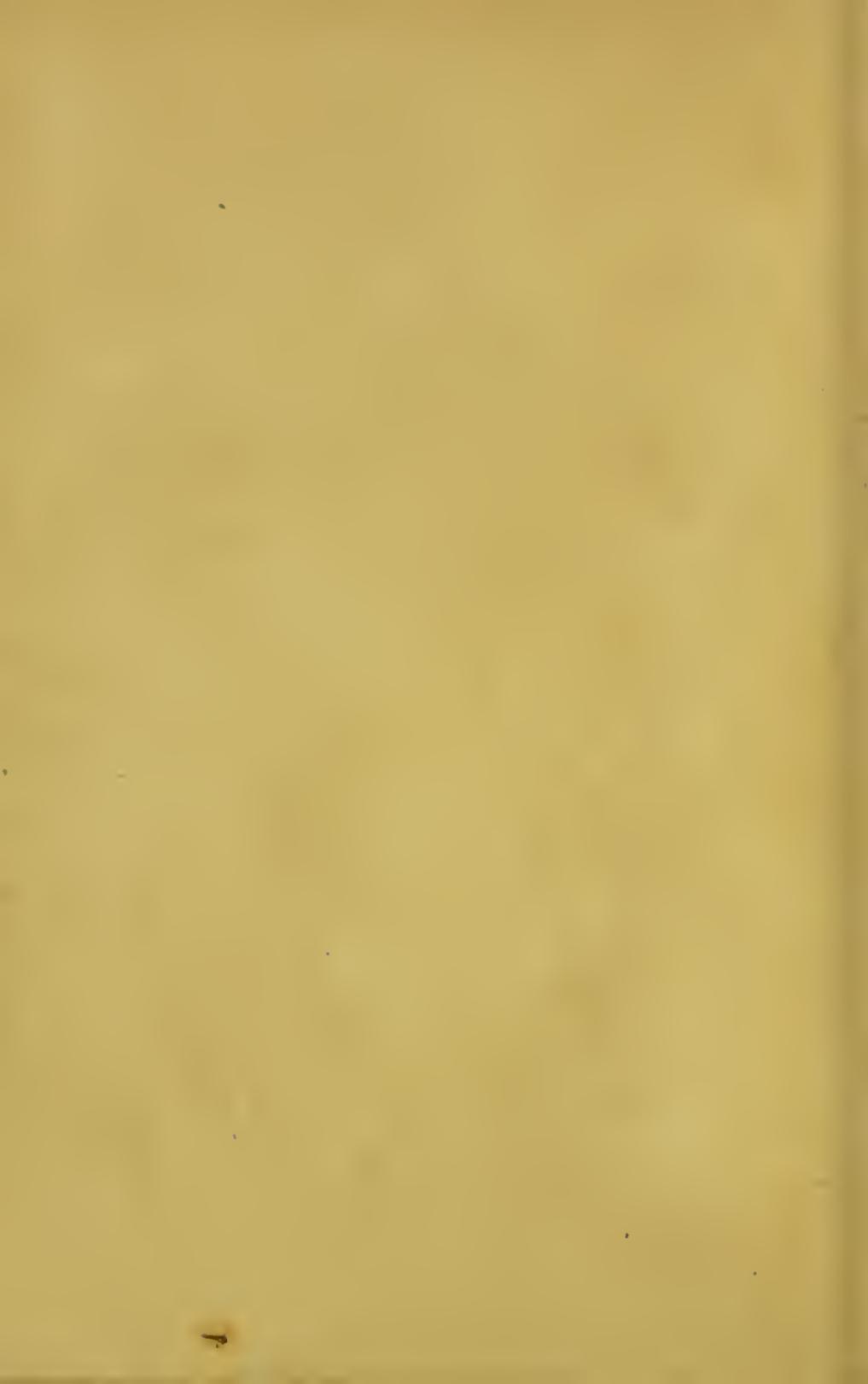
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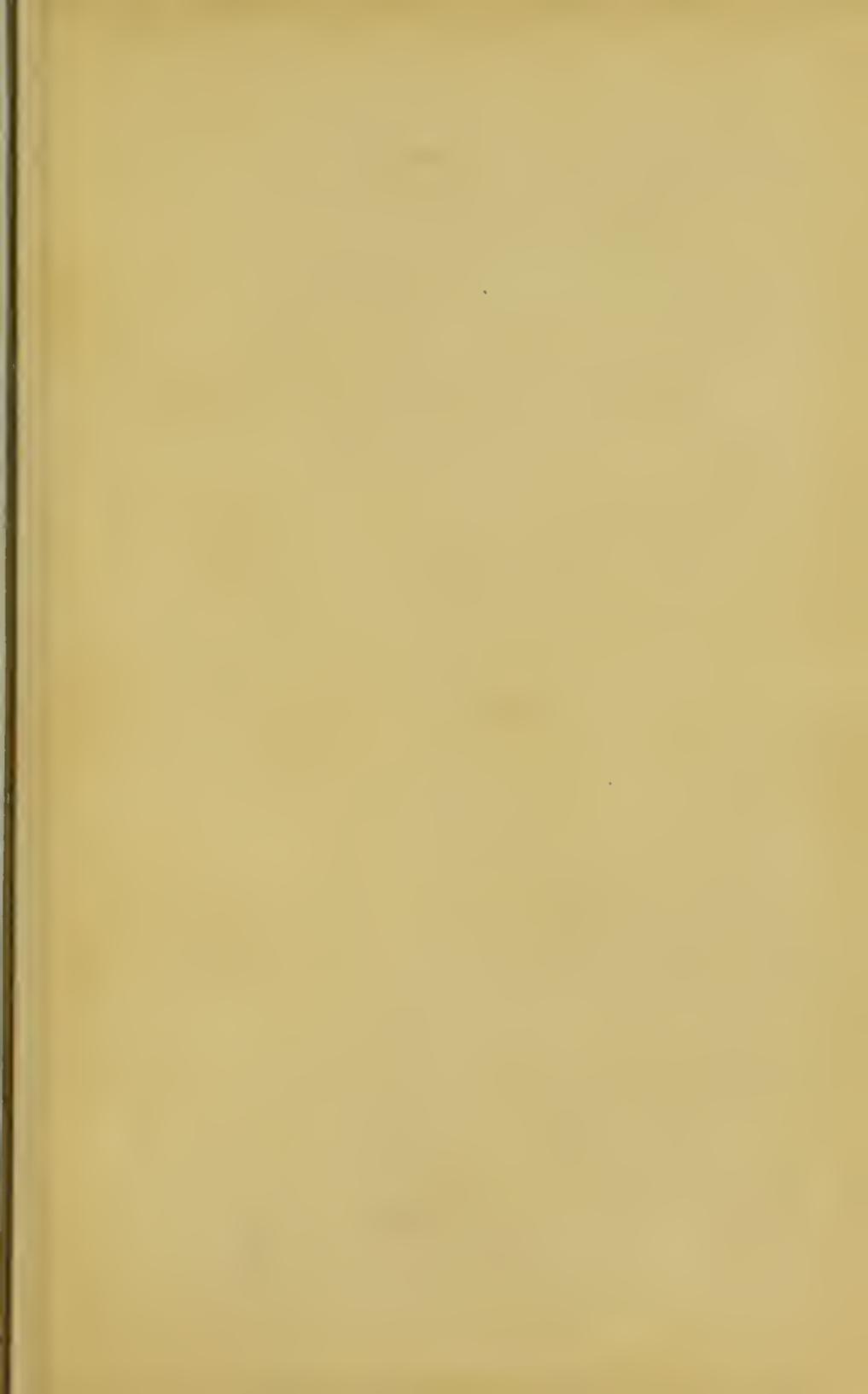
Heath's Greatly Improved and Enlarged Infallible Government Counterfeit Detector, 2nd Ed.

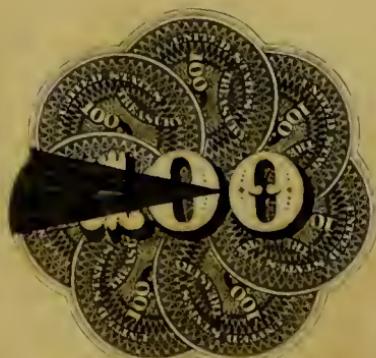
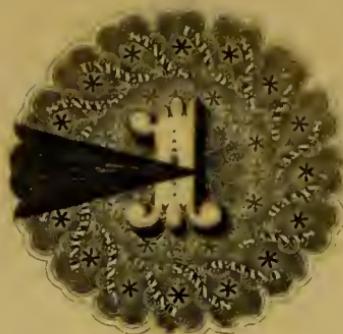
(Boston & Washington n.d.) Copyr. 1866. 39 numbered pp. plus 4 pp. of microscope ads.

Plates 2, 5, double fract, 3 over 1, 4, 1 over 6, 6, 7 over 2, 8 over 5, 9 over 3, 10 over 7, 11, 12, 13, 14, 15, 16, 17 & \$100 First National Boston ctf No treasury letter. Last date of endorsements is Jan. 15, 1867. Green cloth cover with sideways gold lettering with correct July 2, 1867 patent date, 16½ cm., xf.

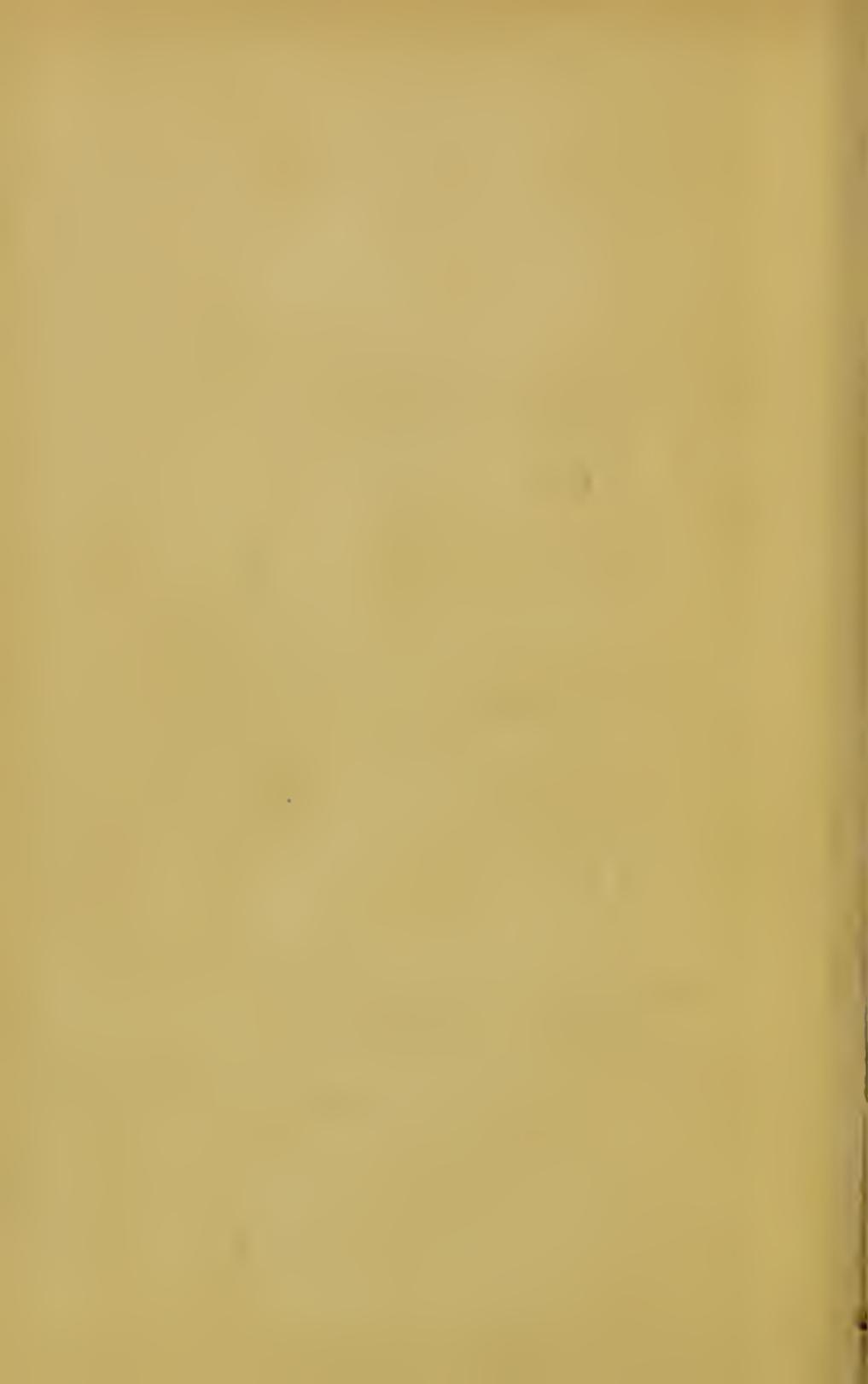












THE HEATH'S
GREATLY IMPROVED AND ENLARGED
INFALLIBLE
GOVERNMENT COUNTERFEIT DETECTOR,
AT SIGHT.

THE ONLY INFALLIBLE METHOD OF DETECTING COUNTERFEIT, SPURIOUS, AND ALTERED BANK NOTES,
GOVERNMENT BONDS, &c.

APPLICABLE TO ALL BANKS IN THE
UNITED STATES AND CANADAS,
AS NOW IN CIRCULATION OR THAT MAY BE ISSUED,
WITH
GENUINE DESIGNS FROM THE ORIGINAL GOVERNMENT
PLATES.

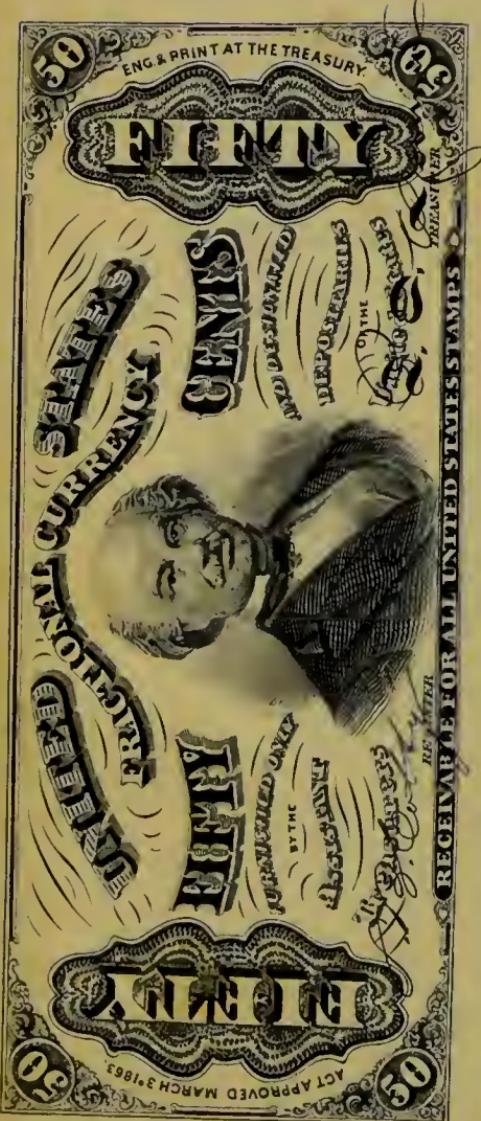
BY AUTHORITY FROM THE
United States Treasury Department, and the American, National, and Continental
Bank Note Cos., New York and Boston.

Second Edition.

BOSTON, MASS., AND WASHINGTON, D. C.:
PUBLISHED BY LABAN HEATH,
TEACHER OF COUNTERFEIT DETECTION,
No. 20 Washington Street, Boston, to whom all orders should be addressed

Entered, according to Act of Congress, in the year 1866, by
LABAN HEATH,
In the Clerk's Office of the District Court of Massachusetts.





ACT APPROVED

MARCH 3rd 1863.

UNITED STATES FRACTIONAL CURRENCY,
RECEIVABLE FOR ALL U. S. STAMPS.

Twenty Five
CENTS

FURNISHED ONLY
BY THE
ASSISTANT
TREASURERS
REGD.

Register.



Twenty Five
CENTS

AND DESIGNATED
DEPOSITARIES
OF THE UNITED STATES.

Treasur.

TREASURY DEPARTMENT

ACT OF MARCH 3rd 1863

FURNISHED ONLY
BY THE
ASSISTANT TREASURERS
AND DESIGNATED
DEPOSITARIES OF THE UNITED STATES.

10



10

FRACTIONAL CURRENCY

RECEIVABLE FOR ALL U. S. STAMPS.

Engraved and Printed at the Treasury Department.

UNITED STATES FRACTIONAL CURRENCY, RECEIVABLE FOR ALL U. S. STAMPS.

FIVE CENTIS

5



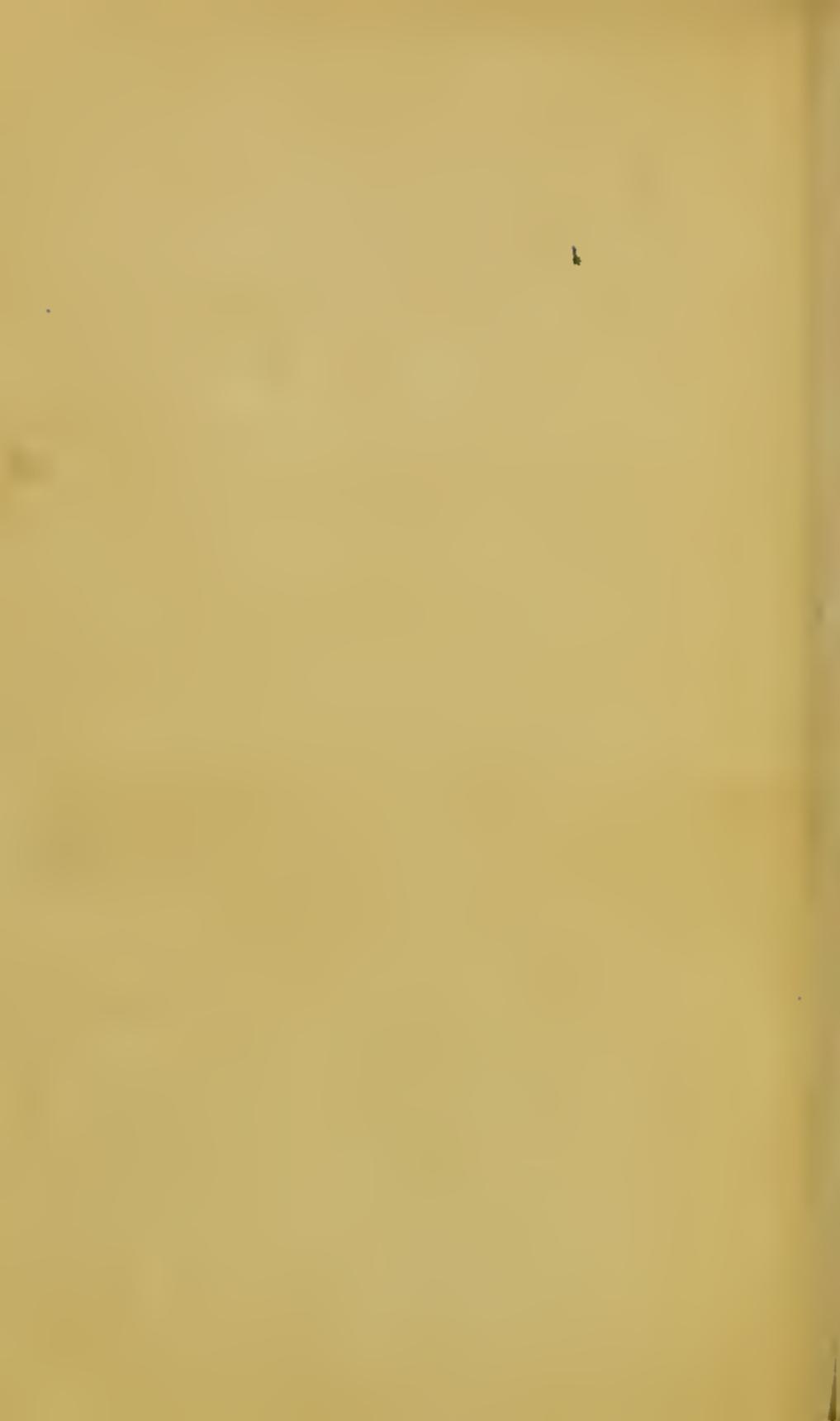
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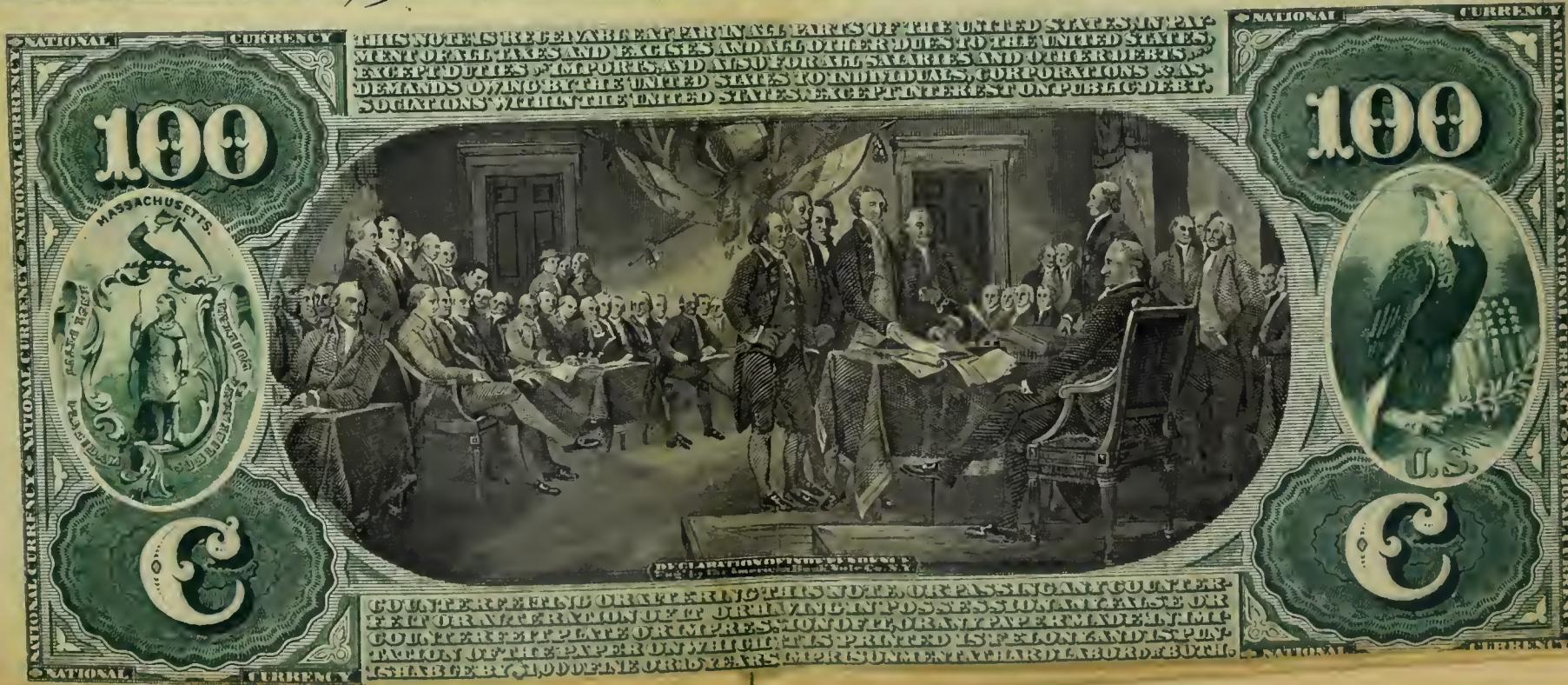
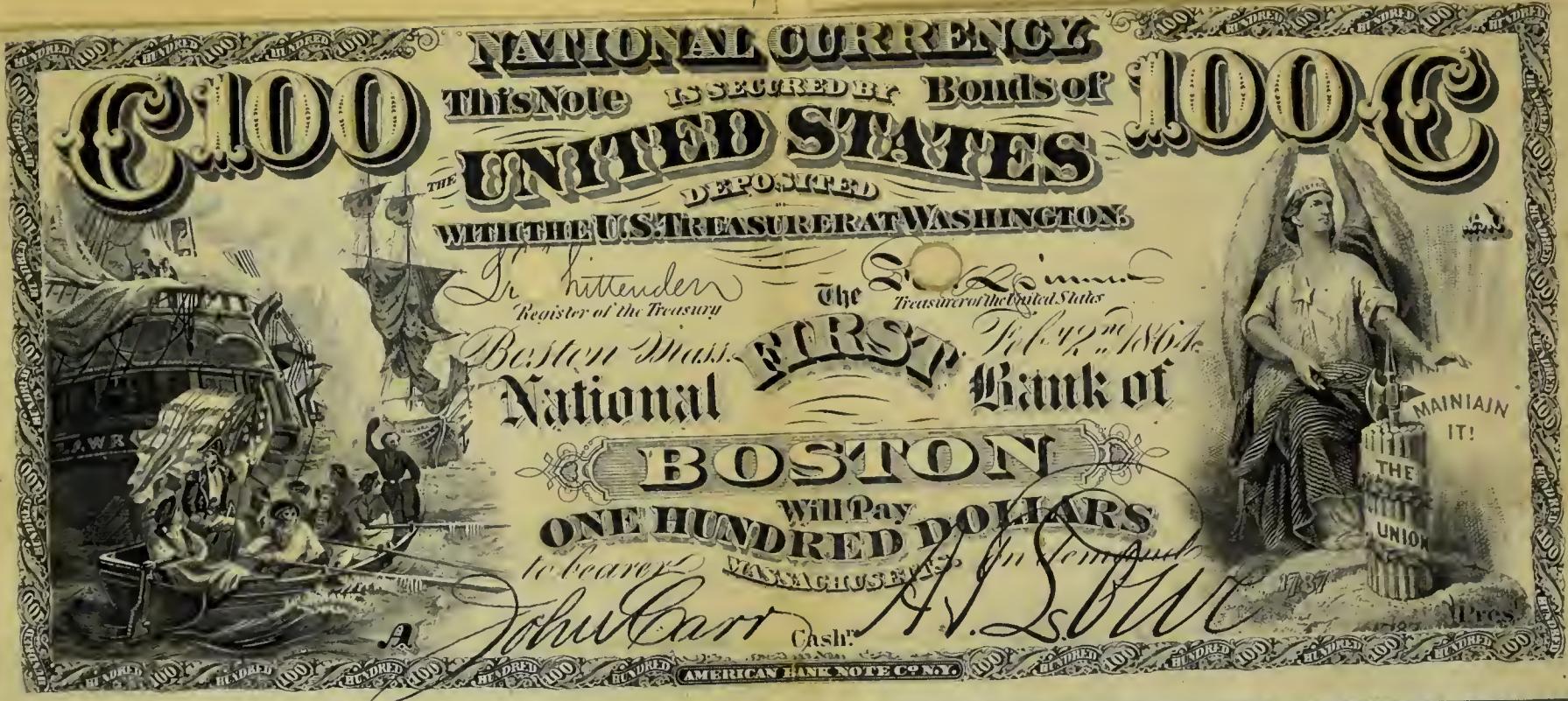
AND DESIGNATED
DEPOSITARIES OF THE UNITED STATES.

J. C. C. REGD.

TREASUR.









111

INTRODUCTION TO THE SECOND EDITION.

IN presenting a second edition of the "Counterfeit Detector" to the public, I wish to add a few remarks enabling the reader more fully to understand its import. Having had unlimited experience in the detection of counterfeit and altered bank-notes, I felt the necessity of placing this knowledge within the reach of all; consequently, in June, 1864, I published the first edition of "Heath's Counterfeit Detector," which met with such favor from the public that it reached the enormous sale of twenty-five thousand copies, and would have far exceeded this number, had not the whole currency of the country been changed to what is commonly known as greenbacks and national bank-bills. This change gave apparent security for a time, and it was confidently believed that the counterfeiter's "occupation was gone." But this delusion was suddenly dispelled by the appearance in our midst of counterfeit greenbacks, so nicely executed that they were passed over the counters of our leading banks as genuine notes and in fact to a great extent over the entire country. This, together with the numerous and dangerous counterfeits of the new national currency, induced the author to apply to the Secretary of

the United States Treasury for certain cuts and dies used on the greenbacks and other national bills. This all-important request led the department to thoroughly investigate the matter, inquiring into the practicability of granting it. The officers of the leading Bank Note Engraving Companies were consulted upon the subject, and after a thorough investigation, permission was granted, on condition that the dies should be so mutilated as to prevent all possibility of counterfeiters making any use of them in their nefarious business, and yet preserving the symmetry of the work.

I am, therefore, through the kindness of the Secretary of the Treasury, enabled in this new edition to give fac-simile cuts and dies from nearly all the Government issues, thus placing in the hands of all the means of detecting the most skilfully prepared counterfeits that can be executed.

In issuing this work, I have retained all of the plates and cuts that were in my first edition save two, which have become obsolete, and have added about fifty of the most beautiful Government devices, including 'vignettes,' 'dies,' etc. These devices are now considered the most important safeguards, as the whole ingenuity of the most experienced rogues seems to be directed against the Government issues since the State bank-bills have mostly been withdrawn from circulation.

The labor and expense of getting up this *new* work has been very great, and I assure the public that I have neither spared time nor money in perfecting it, so that I could present to them a *standard* work, not only worthy of the title it bears, but a sure safeguard against all classes of counterfeits.

In conclusion, I cannot refrain from expressing my gratitude to the Hon. Hugh McCulloch, the able banker and Secretary of the Treasury; Hon. Wm. E. Chandler, his assistant and executive officer; Gen. F. E. Spinner, U. S. Treasurer,

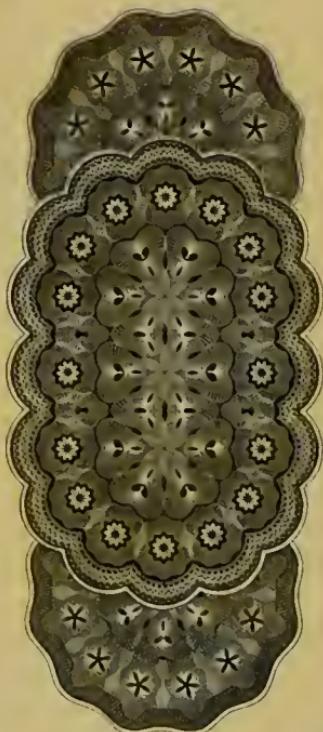
whose bold, inimitable signature is better known than that of any American now living; to Mr. Clark, of the Printing Bureau, and Mr. Wood, detective officer, as well as to the officers of the American, National, and Continental Bank Note Companies, and many others, whose suggestions have been of great value to the author.

LABAN HEATH.

INTRODUCTION TO FIRST EDITION.

THE object of this work is to furnish the public with a *standard* guide, and, in a comprehensive form, the means of detecting Counterfeit Bank-Notes at sight,—the same means employed by Engravers, Brokers, Cashiers, and other experts. Many a man, after taking half a dozen counterfeit bills, has thrown away his “Bank-Note Reporter” in disgust, feeling that there is no certain means of protection against this kind of fraud. The Reporters, however, are not at fault. They do all they profess to do; namely, give the *standing of the Banks*, and describe *known Counterfeits*. The same is true of the “Safeguards” and “Detectors” describing all *genuine bills*. The difficulty lies in the fact that many counterfeits do not find their way into the “Reporters” for a long time, or they are rushed upon the community in various places at once, and the damage is done before there is time to warn the people. Many counterfeits, also, are such exact imitations of the genuine that no *description* can enable one to detect them. The only sure protection, then, is to possess the power of judging the *genuineness of the note* by the *quality of the work*. This knowledge has been reduced to fixed principles, so clear and simple that any one, with the aid of the microscopic glass, can understand and apply them. Many ladies, under the tuition of the author, have become experts in detecting counterfeits, and all who have become acquainted with the author’s mode of teaching the art have shown the deepest interest in it, and a desire to know still more. This fact, and a desire to fur-

Plate 3



American Bank Note Co., New-York & Boston



nish the community a protection against the enormous amount of spurious currency now afloat, have prompted the author to prepare the present work. The expense of the work has been very great, owing to the high cost of genuine engravings with which it is so profusely illustrated. It may also be remarked that the author has enjoyed peculiar facilities for procuring such engravings, which are obtained with great difficulty, owing to the misuse which might be made of them by counterfeiters; and he is thus able to apply the principles, here taught to the United States and National Bank-Note currency, with full illustrations of the same.

The general principle upon which the detection of counterfeits is based is that *all parts of genuine notes are engraved by machinery*,—with some exceptions hereafter named,—while *all parts of counterfeit notes are engraved by hand*, with exceptions hereafter given.

The machines employed in engraving are very elaborate and expensive, thus placing them beyond the reach of counterfeiters, who, even if they had the capital, would hardly risk investing from \$75,000 to \$150,000 in an illegitimate business which might be taken from them at any moment by the officers of the law. The size and weight of such apparatus would also prevent concealment.

The work executed by the regular Bank-Note Company is of great beauty and perfection; and in all its parts mathematically and geometrically exact. Engraving executed by hand or even with the aid of some simple machinery, can never approach the beauty and exactness of genuine work. The success of counterfeiters in circulating their spurious issues is not at all due to any excellence of work that would deceive a practised eye but to the general ignorance of the public as to what constitutes good and poor engraving; so general is this

ignorance, that it is rare to meet a man who knows the object or character of the beautiful devices found upon every bank-note, and which are its only safeguard against counterfeiting. In judging of the genuineness of a note, some look carefully for pin holes, others for signs of wear, and others still examine the paper, all of which are easily imitated by counterfeiters.

In the engravings of this work will be found a *standard of excellence*, with which all genuine work will favorably compare; while counterfeits will fail to stand the test. A careful comparison will reveal their defects,—defects which will never be found in genuine work. Some works of similar character to this have attempted to give specimens of counterfeit engraving by means of wood-cuts. This, however, is impossible, as there is no standard for counterfeits, varying as they do from poor to excellent.

The various kinds of work will be fully described in the following sections. They consist of—

SEC. 1. Geometrical Lathe Work.

- “ 2. Ruling Engine Work.
- “ 3. Medallion Ruling Engine Work.
- “ 4. Vignettes.
- “ 5. Solid Print.
- “ 6. The Perkins Plate.
- “ 7. Minor Rules.

Then will be added—

SEC. 8. Altered Bank-Notes.

- “ 9. General Directions.
- “ 10. Particular Directions.
- “ 11. Remarks.
- “ 12. Microscope or Magnifying Glass.

Plate I.

\$5 Green Back



\$10 Green Back



\$20 Green Back



\$100 National Currency



\$5 Green Back



\$10 Green Back



COUNTERFEIT DETECTOR.

SECTION FIRST.

GEOMETRICAL LATHE WORK.

[Cannot be Successfully Imitated.]

ALL the figures on bank-notes, of circles, ovals, squares, etc., and upon which the denomination is usually placed (see Plates 2, 3, 4, 5, and 6), are composed entirely of a *network of fine lines*, crossing each other at such angles and distances as to produce the desired effect. This *fine line* is the characteristic of this description of engraving, and in genuine work can be traced by means of a lens throughout the figure, never breaking or losing itself in another line, or pursuing any irregularity whatever. This line is usually white, on a black or green ground, or sometimes red, but may be a black, green, or red line on white.

Plate 5, shows the beautiful lathe work, on the right end of the backs of the \$10, \$20, \$50, and \$100 National Currency Notes; they are printed

in green, the same color used for the bills. A careful comparison of any suspicious note of the above denomination (with the aid of a lens) will at once determine its character. This line is produced by the Geometrical Lathe, a wonderful and beautiful engine, invented by Mr. Asa Spence, of Connecticut, and first introduced into general use in 1818-19. The patterns produced by the geometrical lathe are of every conceivable variety of form and figure; but this *fine line* is the characteristic of them all. The lathe does not engrave its patterns directly upon the bank-note plate, but upon pieces of soft steel one-eighth of an inch thick. This piece is then hardened by a peculiar process, and then a cylinder of soft steel is rolled over it by means of a powerful machine called the Transfer Press, and the engraving is transferred to the cylinder. This cylinder is then hardened, and is capable of transferring the same design to the bank-note plate, by means of the Transfer Press. *In counterfeit engraving, on the contrary, the design is engraved directly upon the plate, and will fail in two ways.* First, it will be impossible to produce the *perfect line* of the genuine, and the effect to the naked eye will be a more or less dull and sunken appearance, and sometimes a "scratchy" look. The figure will also be darker or lighter in spots, because the lines will be sometimes heavier and sometimes lighter. The lens will also show the lines to be imperfect; some-

Plate 1



times broken, irregular in size, and irregular in their course; and, second, it will be impossible to produce two dies exactly alike. In the genuine plate, when two dies occur alike, both are "transferred" from the same cylinder and *must* be alike; but in the counterfeit, each being separately engraved, and by hand, it is *impossible* to produce two exactly alike. An examination of the plates showing the more frequent forms of geometrical lathe dies will show the beautiful, clear, raised impression produced by the correct lines of the genuine engraving. Sometimes the whole face of a note, except the vignettes and dies, will be *tinted* a pale red or other color. This tint is composed of fine curved or looped lines, running across the whole face of the bill, and is done by the geometrical lathe. In the genuine it will be perfect in the lines and in the shades, like all lathe work, as described above; and the counterfeits will have the same imperfections, in the lines and in the shades, before described. In all the Government issues (with the exception of the old fractional currency now nearly obsolete) the geometric lathe work is largely used, constituting the chief test of genuineness. *This should be made a particular study* by carefully examining the plates, both with the lens and the naked eye. The student will thus become familiar with genuine and perfect work.

SECTION SECOND.

—
RULING ENGINE WORK.

THE *fine line* is also the characteristic of this kind of work; but the lines, instead of forming circles, are *parallel*. This work is always used for the *shading of letters* (see Plates 7 and 8), and forms a perfectly even pale gray shade. The lines are usually very fine in genuine work, so that the shading appears light. It may, however, be dark and yet be genuine.

The engraving is produced and transferred in the same way as the geometrical lathe work, and the shade will always be uniform,—no part darker than another,—the lines will all be perfect, and the spaces between them exact. They may be horizontal, i. e., directly across the plate, or diagonal, running crosswise the plate. In the counterfeit, this work, like all other, is engraved upon the plate by hand, aided sometimes, perhaps, by some simple and imperfect machinery.

Consisting of the fine line, like the geometrical lathe work, it will fail in the same particulars; namely, will be more or less dull and sunken, looking as though done with a lead-pencil, and may also have the “scratches” appearance; and,

Plate 6.

Section of large Figure on
\$2 National currency



\$2 National currency



\$1 National currency



\$1 National currency



AMERICAN BANK NOTE COMPANY

NATIONAL BANK NOTE CO. NEW YORK

second, it will be *impossible* to produce two letters with exactly the same shade. The first letters of the name will be lighter or darker than the middle or last ones. The lens will show the lines to be more or less coarse and uneven, frequently breaking, and sometimes ending too soon, as seen in Counterfeit Plate 16.

The lines are also liable to be crooked, — not perfectly parallel. Fine specimens of Ruling Engine work will be found on Plates 7 and 8. It is generally used, as there, for the shading of names of Banks, and also for the names of Town, State, etc. It is also used for the large letters across the face of some notes, indicating the denomination of the bill, as seen in Plate 8.

For the purpose of more fully illustrating the difference between genuine and counterfeit engraving, we have at great trouble and expense obtained a counterfeit plate engraved by counterfeiters, and taken from them at the time of their arrest. (See Plate 16.) This plate is in the hands of the American Bank Note Company, from which these specimens are printed. Plate 15 is a beautiful specimen of engraving by the American Bank Note Company. The geometrical lathe work in each corner of the note, and medallion ruling work which encloses the title are exceedingly beautiful, and shows at once the impossibility of counterfeiters ever obtaining the beauty found on this plate. Plate 16 is the counterfeit plate

already referred to, and is pronounced by all an excellent specimen of counterfeit work, but by comparison, with a lens, the difference will be instantly perceived.

SECTION THIRD.

MEDALLION RULING ENGINE WORK.

The beautiful medallion heads, the raised shields, upon which the denomination of the note is sometimes placed (see Plate 9), and the raised work sometimes seen in the large figures 5, 3, etc., running across the face of the bill, are produced by this engine. The *fine line* is still the characteristic of this work, as of the two already described. The difference is that in the first the lines formed *circles* (eccentric, concentric, and geometric); in the second the lines were *parallel*; in this they are *waved*. (See medallion head, Plate 9.) A careful examination of the plates will show that in the dark places the lines approach nearer to each other; in the light places they separate more. This engine engraves from a pattern. A medal, or coin, or other prepared pattern, is placed in the machine as a "guide," and every undulation of this "guide" is copied

**THE
AMERICAN
BANK
NOTE
COMPANY**

Printer

Bank of Michigan

ONE DOLLAR

TWO DOLLARS

ONE DOLLAR

by the machine with *unerring exactness*. The lines extend entirely through the figure, approaching and departing from each other, but never breaking. The engraving is then "transferred," as described in Section First. The effect of this is a beautiful *raised* appearance, with an almost *metallic* lustre and brilliancy, as may be seen in the plates. In counterfeits, this work, like all other, is engraved upon the plate by hand, or possibly with the aid of some imperfect machinery. The result will be that the lines will be found by a close examination to break off in the pattern, and sometimes to be forked, and also irregular in size,—some coarser and some finer,—and one line will not be of the same size throughout. The effect of this is that the engraving will have a *dull* and *sunken* appearance,—more like a wood-cut. The pattern, also, wants the ease and grace of the genuine. The *flat* expression will be the most striking. When used as a counter upon which to place the denomination, and there are two dies that pretend to be alike, they will (if genuine) be exactly alike, both being transferred from the same cylinder; while in counterfeits they will not be exactly alike, being done by hand at different times. The beautiful work of the medallion ruling engine can be seen in Plate 9. It has not been used upon any Government issues thus far, probably because it can be a little better imitated than the lathe work.

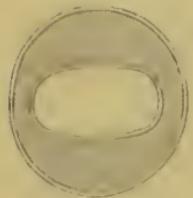
SECTION FOURTH.

—
VIGNETTES.[*Can be Imitated.*]

THE four kinds of work previously described are always and invariably *machine work* in genuine bills, and therefore *cannot* be imitated successfully by the means in the hands of counterfeiters. Vignettes may be classed as the *artistic* part of bank-note engraving, as the greater part of it is done by hand, and in all genuine work by first-class artists. Water and sky are sometimes done with the ruling engine, and when they are, come under Section Second, and cannot be successfully imitated. The only thing required for a first-class vignette is a first-class artist; but as such artists receive high rates of compensation, and can usually find plenty of employment from the regular companies, counterfeiters can offer little temptation to induce them to work for them, and there is also little temptation for artists to become counterfeiters. It is therefore *rare* to see fine vignettes on counterfeit notes. That good work is *sometimes* found upon such issues is, however, not to be denied; and some works of a similar character to this have taught people to rely

Plate 8

AT



AT

AMERICAN BANK NOTE CO.
NEW YORK & BOSTON

AMERICAN BANK NOTE CO. NEW YORK & BOSTON

too much upon the character of the vignettes. Much is said about the appearance of the eyes, hair, skin, drapery, fingers, toes, etc., leading people to suppose these are infallible "guides." The Plates 6 and 11 give fine specimens of first-class vignettes, which will be readily recognized by the reader as belonging on the different denominations of National bills, and all vignettes which fail to compare well with these should cause the note to be carefully examined ; but the style of vignette should not be allowed to overturn judgment based upon the work described in the first four sections. If that be all genuine, an ordinary vignette cannot make the bill counterfeit, and if that be counterfeit, no vignette can make the bill genuine. The vignettes on the backs of the \$5, \$10, \$20, \$50, and \$100 National Currency Notes are taken from historical paintings from the U. S. Capitol at Washington, which are exceedingly lifelike and beautiful. The engraving on the back of the \$5 is the landing of Columbus ; on the back of the \$10 is De Soto discovering the Mississippi ; on the back of the \$20, the baptism of Pocahontas ; on the back of the \$50, the embarkation of the Pilgrims ; on that of the \$100, the signing of the Declaration of Independence. Being under the necessity of mutilating all the dies furnished by the U. S. Treasury Department, as referred to in the Introduction, I have taken the right end of back vignette of \$5 National Currency, and the right end of face of \$5 National Currency, and the left-hand half of

the \$10 and the right-hand half of the \$20; also, the left-hand half of the \$50 and the right-hand half of the \$100, and put them together, to preserve their symmetry, instead of mutilating the entire back. (See Plates 12, 13 and 17.)

On the centre of Plate 14 will be seen the vignette which appears on the left-hand end of the \$5 greenback. At the right of it is the vignette of the \$20 greenback; at the left is vignette on right end of \$10 greenback. The portraits in Plates 1, 2, and 4 were executed by men at the head of their profession, and are exceedingly lifelike and beautiful. Counterfeitors oftener fail in portraits than in out-door scenes, — giving them generally a sunken and lifeless expression. The vignettes upon the Government issues consist of out-door scenes, historical pictures, portraits, and allegorical figures. All are of exceeding beauty, and it is not probable that counterfeiters will ever succeed in successfully imitating such work. Specimens of all are given, — the splendid portraits of Chase and Hamilton, on Plate 2, executed by the National Bank Note Co., of New York, cannot fail to strike the eye of the most casual observer. Yet the portrait of Hamilton has been dangerously imitated on a counterfeit \$50 greenback. But it should be understood that, however perfect, a counterfeit cannot be the same as the original. This portrait of Hamilton, for instance, has been engraved but once, and all impressions of it upon Government notes, or in this book, are exact copies

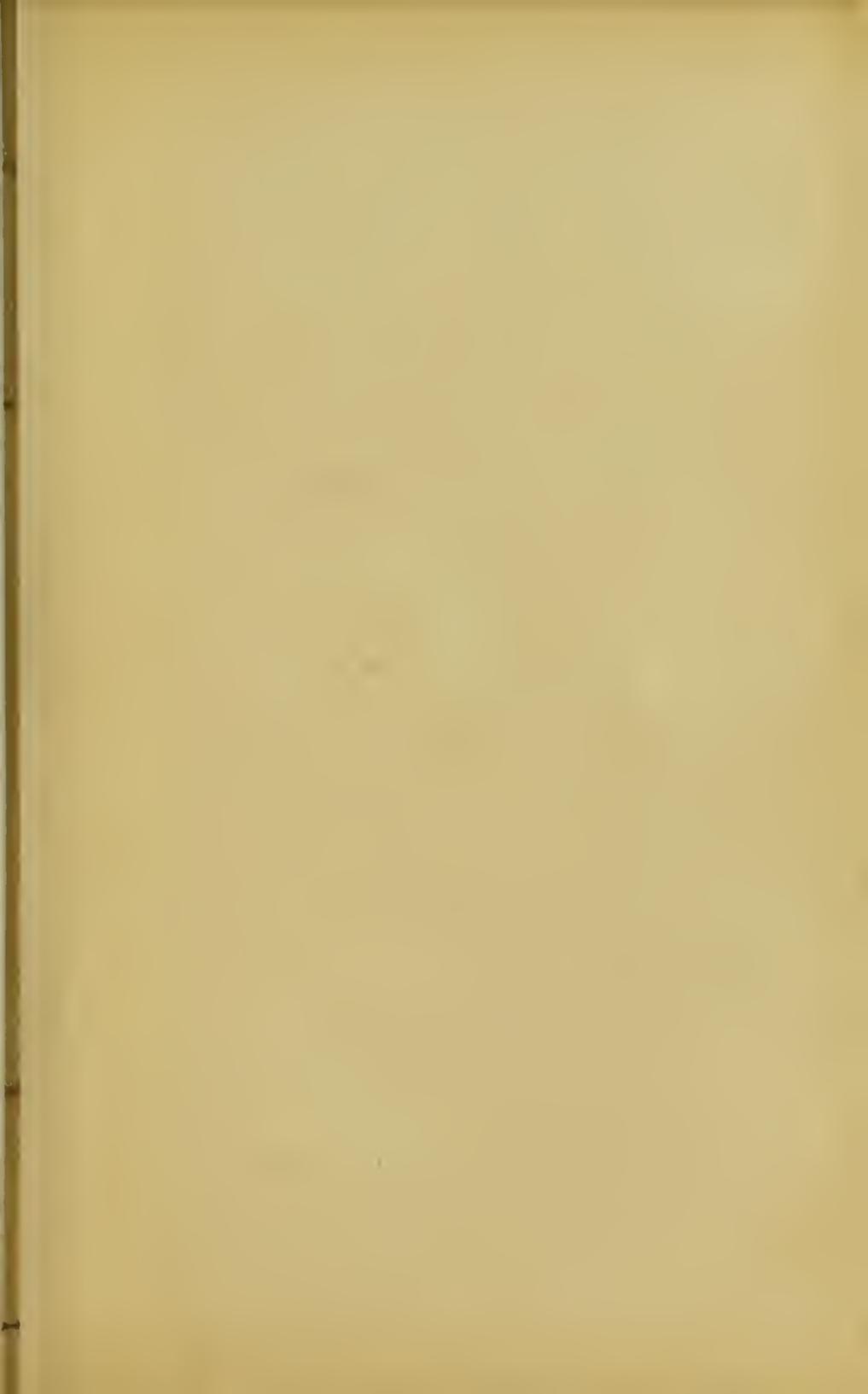




Plate 9



of that one engraving, being all made from it by the transferring process already described. The same is true of all vignettes upon Government issues. A comparison, therefore, of a supposed counterfeit with the specimens in this book will show whether it be exactly the same or not.

SECTION FIFTH.

SOLID PRINT.

[Can be Imitated.]

IN genuine work the lettering is done by a first-class artist, who makes it his exclusive employment, and therefore arrives at a high degree of perfection. The name of the engraving company is always engraved upon the genuine with great care and accuracy. It will be found on the upper or lower margin of the bill. In counterfeits, it is more or less irregular and uneven. The chief use of solid print is to prevent alterations, as will be hereafter explained. It is classed as capable of imitation, because a good artist can engrave it for connterfeitors, if so disposed, as well as for the regular engraving companies. A specimen of solid print will be seen at the bottom

of Plate 7. Muel has been said in some "Detectors" about the lettering of "Promise to pay," etc., as being nearly infallible. The truth is, however, that this is of little value, being frequently very neatly done in counterfeit notes. Some bank-bills have the denomination of the bill engraved in very fine letters across the whole or part of the face of the bill,—one dollar, one dollar, one dollar, etc. This, in the genuine, produces a perfectly even shade of black, green, red, or otherwise, according to the color of ink used; but in the counterfeit cannot be so well produced: and, therefore, the shade will be lighter in some places, and darker in others. This is *nearly* infallible. This latter form of using the solid print is not used on Government notes.

SECTION SIXTH.

THE PERKINS PLATE.

THE Perkins Stereotype Plate is an engine-ruled die; and in the face of the note does not differ from other work of this kind, as described in Section Second. Its chief characteristic is the *check back*, composed of various sizes and kinds of type, thrown together in a most confused man-





Plate 10



ner, and then arranged in ovals, bars, etc., covering the back of the note. It is usually printed in reddish-brown or black. For a long time this was also thought to be a nearly perfect safeguard; but it has been imitated, and is now mostly superseded, even on State bank-notes, by the more beautiful designs of the geometric lathe.

SECTION SEVENTH.

MINOR RULES.

WE will now give some indications which, though not infallible, are important.

Printing.

Genuine bank-notes are always printed with great care. The plate is covered with ink, which is then carefully wiped off, excepting what remains in the lines of the engraving; the impression is then taken with a powerful press, with great care and accuracy. This gives a clear and beautiful impression, which will be more or less wanting in counterfeits.

Ink.

The ink used in genuine bank-note printing is of peculiar quality, and very difficult for counterfeitors to obtain. If black, it gives a clear, glossy

impression, without any *smutty* appearance, such as is sometimes seen in counterfeits. The green ink used in Government work is *almost* impossible to imitate; and the red and other colors are almost as difficult. Genuine ink of any color has a more or less clear and *glossy* appearance, while counterfeit inks look dull and muddy.

Paper.

Genuine bank-notes are printed upon paper composed of linen, and it is usually of good quality. It varies much in thickness, it being sometimes very thin. Persons who are not acquainted with paper sometimes pronounce the *thin* paper poor. We have seen one of the beautifully-engraved notes of the Suffolk Bank, Boston, looked upon with suspicion by persons unacquainted with the art herein taught, simply because the paper *was thin*. It is, also, not impossible for counterfeiters to procure good paper. Out of twelve counterfeit notes now lying before us, four are upon *very* poor paper, two upon rather poor paper, and *six* upon *very good* paper; one at least of the latter is upon paper of the *first quality*. It will be seen, therefore, that the paper, though important, is not infallible.

Signatures.

The only thing counterfeit about a bill sometimes is the signatures, the notes having been

Plate II.

Vignettes on National Currency Notes

\$10



\$100



\$20.



\$50.



Pres!

Pres.

stolen before they were signed. There can be, of course, no sure protection against this for all. Those who are well acquainted with the signatures of the officers of the bank where bills are stolen may not be deceived, as imitated signatures have a more or less cramped and unsteady appearance; but those who live at a distance cannot possess this knowledge.

SECTION EIGHTH.

ALTERED BANK-NOTES.

BANK-NOTES are altered in two ways; first, by raising the denomination; second, by changing a genuine bill on a broken bank to a good bank.

Denominations are altered, first, by *pasting*. Figures or letters of larger denomination are pasted over the denominations of the note to be altered, first scraping the genuine until thin. This can frequently be discovered by simply examining it with a little care, and always by holding the suspected note up to the light, when, if pasted, the pasted parts will be darker, because thicker. A counterfeit \$50 greenback has been recently made to look like a genuine, by pasting on a portrait of Hamilton, cut from a genuine \$2 greenback.

Second, *by taking out the denomination of the genuine with an acid, and printing in a higher with a counterfeit die.* In this case, the ink will not be the same as the original, as explained in Section Seventh; neither will the work compare with the original. If solid print, it will not be as exact and perfect; and if the original is shaded, the shading of the counterfeit part will have the faults described in Section Second. For instance, the words ONE DOLLAR may be changed to FIVE DOLLARS. In that case the *five* will be engraved by hand, and the *dollar* by genuine means; an S must also be added, and the work will appear crowded.

Another indication is that the acid will spread a little, taking out more than the counterfeiter intended, so that parts of the neighboring letters will be more or less injured. The paper, also, will be either bleached or stained by the acid, as can be seen most plainly upon the back.

In the United States bills, or greenbacks, the ones, twos, and threes have a circle of green lines radiating from the denomination. This circle can be found on no larger notes than threes, if genuine. This is an additional safeguard against altering United States notes. The solid print will also be found defective, as described in Section Fifth.

The second kind of alteration — that of broken banks to good ones — sometimes requires a close

Plate 12.

Left end of Back \$10
National Currency.





examination to detect them; but a good understanding of the principles here taught will secure any one from deception. To make this change, the *name of the Bank* and signatures of the officers *always* have to be removed, and new ones inserted, and generally the *name of the Town* and sometimes of the *State* are also changed. These must be removed by acid, and the work inserted will be counterfeit, and will be recognized as such by an application of the principles already taught. If the letters are shaded, it will be done by hand: and not by the ruling engine, and will have the imperfections described in Section Second. If solid print, the counterfeit will have the faults given in Section Fifth. Sometimes only a part of the name is changed, and then the contrast between the counterfeit and the part not changed is more evident. There will also be marks of the acid, the same marks mentioned above, and the counterfeit signatures are apt to be faded, from some acid remaining in the paper, after removing the original signature.

SECTION NINTH.

GENERAL DIRECTIONS.

In receiving bank-bills, first look at the general appearance of the bill, — casting your eye across it, — and if anything is wrong, it will probably catch your eye. Then examine the various parts more perfectly, examining the geometrical lathe work. Then examine the shading of the letters, — the ruling engine work, — and look for any indication of alteration in the title or denomination of the note. Then if there are any Medallion Heads or Shields, or other Medallion Ruling, compare it with Plate 9, and examine the lines. Examine the Vignettes and Portraits, noticing whether their style and perfection compare well with the standard work of the plates, and whether they are exactly the same. If there is engine ruling in the sky or water, you will have an additional proof. An examination of the Solid Print and engravers' names will confirm the decision, whatever it may be; and the Printing, Ink, and Paper may also be considered in making a full decision. Such an examination of a note, with a very little practice, and a frequent reference to these standard plates, will secure any man of ordinary observation and intelligence against deception.

Plate 13.

Left end of Back \$50
National Currency

Right end of Back \$100
National Currency



SECTION TENTH.

PARTICULAR DIRECTIONS

FOR DETECTING COUNTERFEIT GREENBACKS, NATIONAL CURRENCY NOTES, AND FRACTIONAL CURRENCY.

IN receiving the note, look at the general appearance, and if it is not perfectly satisfactory, compare it with the corresponding work in the book, as you will find parts of all the circulating notes (Greenbacks, National, and Fractional Currency, with the exception of \$500 and \$1,000) in this work, and if, on comparison, it does not come up fully to the standard, it must be counterfeit. One of the most successful counterfeits ever executed is the \$50 U. S. Greenback, which has deceived some of the most experienced. Certain parts of the genuine work are in this book, on Plate No. 2; and a person, having the book and magnifier, can, upon comparison, discover the difference at once.

In presenting to the public two plates of Scrip, or Fractional Currency, we wish to say that the 50 cent Scrip (which is the first on the plates) is the best executed counterfeit ever issued. It was engraved by a man who was an expert in the art, as thousands who have been made dupes to his nefarious designs can testify. He was finally arrested by the Secret Service Division, convicted, his plates secured, and his illegal business broken up.

SECTION ELEVENTH.

REMARKS.

WE will add here a few suggestions, hints, and items, which, although important, could not be added elsewhere without confusing the mind of the learner.

Genuine Dies on Counterfeit Bills.

A genuine lathe die will sometimes be seen on a counterfeit bill. The die so used may have been stolen, although that is very difficult to do, as all such work is guarded by the best of safes and other protections, or it may be one of the lot that was sold at auction in New York, in 1841, and some of which fell into the hands of counterfeiters. These dies, however, do not render the *other* work genuine. The ruling of the letters, solid print, in short, all the other work on the bill will be counterfeit, — and a *single piece of counterfeit work* condemns the bill. Some of those ancient dies were vignettes, — so that even the geometrical lathe dies and vignette may be genuine work, yet the ruling and other work will be enough to condemn the note. This applies only to State bank-bills.

Check Backs.

The work upon the back of bills is usually done by the geometrical lathe (except the Perkins



3. *Uttaranchal*



BUS UNIV



100 *Journal of Health Politics*

Plate), and therefore comes under Section First. A beautiful specimen of check back is seen upon the Government notes, the "greenbaeks;" we mention it here to remark that bills with check backs are rarely altered or counterfeited. If counterfeited, the check back is often omitted. In attempting to alter such bills, the acid strikes through and destroys part of the back, which cannot be replaced. If the alteration be in the denomination, it will have to be altered in the back, also, as it is usually expressed there, and such an alteration would be likely to stain through upon the face.

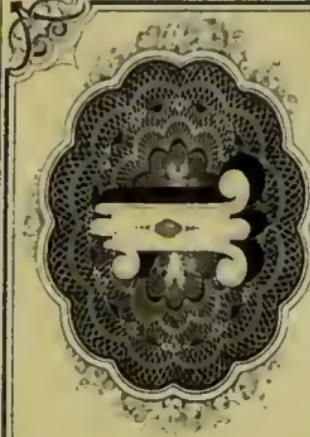
It will sometimes be noticed that two bank-notes that should be alike differ somewhat in size, one being a little shorter than the other; and this may excite some suspicion. It is owing, however, to a little shrinkage of the paper, after printing, and happens as often to genuine bills as any.

Piecing.

Some counterfeiters make ten bills of nine, by cutting a counterfeit note into ten pieces; one of these pieces is pasted into a genuine bill, cutting out a piece of the genuine of the same size. In pasting nine genuine bills in this manner, nine pieces are obtained, which, with one piece of counterfeit, will make a tenth bill which is the profit. Banks will redeem the genuine parts of such bills at their fractional value. This operation is not a very successful one, as the difference between the

counterfeit and the genuine will be very evident to any one who possesses a knowledge of the art here taught. To hide this difference, they generally deface the counterfeit part somewhat, and give the note a worn appearance.

The new National Currency, which has nearly taken the place of all other issues, except United States Notes, is supposed by some to be entirely secure from counterfeiting, and, therefore, that no knowledge of detecting will be necessary, and no care in receiving such bills will be required. Such, however, is not the case. It is true that the remarkable excellence and abundance of the work upon the Government and National Currency, and the difficulty of imitating the green, will render counterfeiting very difficult. It should be remembered that this currency offers *great inducements* to counterfeiters, and a successful counterfeit will repay great outlay and care,—for two reasons: first, the greenbacks will go anywhere in the United States, and if a counterfeit becomes known in one State or section, it can be taken to another; while counterfeits on local banks, when once known, are killed; and second, a plate may be prepared to counterfeit the currency of the National Bank in one town, may be run upon that till known, and then with simply a change in the title of the bank, be immediately changed to another bank, and thus, as fast as it becomes known, can go through all the banks in the United States,



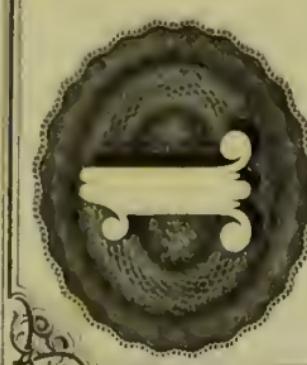
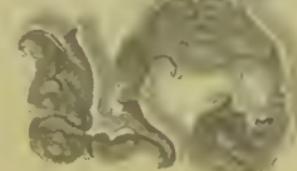
— ((*Constituted January*)) —

Established



Plate 15.

American Bank Note Co., New York & Boston



thus having an opportunity for *sixteen hundred* changes, thereby increasing the chances of success *sixteen hundred times*.

The fifty cent postal and fractional currency is already freely counterfeited; yet hundreds of such counterfeits pass without any question, where the application of the first rule in this work would detect the fraud; the lathe work would condemn them in an instant.

These facts are not mentioned to depreciate our new currency in any way, but to warn the public against a false security, and thus most effectually head off the rascally authors of counterfeit issues, by forewarning and forearming the people. Every man, woman, and child has occasion to handle more or less money; and if all would possess themselves of the knowledge here taught, counterfeiting would soon become a profitless business. We want to see a knowledge of this art in every place of business,—yes, in every house and cottage in the country. It has long been our business and our pleasure to forewarn and defend the people against the miscreants who tamper with the commercial life-blood of the nation, defrauding the poor, the widows, and the fatherless of their scanty store, and giving to all vexation and loss in place of security and profit; and we hope to still further disarm and paralyze them, by a more general diffusion of the knowledge of this art, by means of this little work. Vigilant officers of po-

lice may do much to guard the community, but their most painstaking vigilance is not always successful; while a general knowledge of *detecting bank-notes by the engraving* will root out the very fangs of the *serpent*, — *Counterfeiting*.

SECTION TWELFTH.

MICROSCOPIC OR MAGNIFYING GLASS.

THE beautiful fine lines required in the engraving of all bank-bills, even in moderately well-executed counterfeits require the aid of the microscopic glass, and sometimes a microscope of great power is absolutely indispensable in order to discern the genuine line, and discriminate between the true and the false work. The ordinary magnifying glass now in use by banks has failed, in many instances, to bring out this delicate work sufficiently to detect some of the late skilfully-executed counterfeits. In order, therefore, to meet this difficulty, I have, after much labor, invented a combination Micro-telescopic Glass, and in May, 1866, secured letters patent on the same, which is designed for use and sale with the "Detector."

This glass is a fine magnifier, a powerful microscope, and spy, or opera glass. By a simple change, this instrument is convertible into either



IN THE BANK DEPARTMENT.

Gold

PLATE 16



Plate 16.



ORLEANS



Cash!

Post!



III. 6

ord

1000

PLATE 44.

Right end of face of \$5 National Currency



ENGRAVED BY THE CONTINENTAL BANK NOTE COMPANY, NEW YORK.



Right end of back vignette, \$5 National Currency

one of the above-named glasses, and is very useful at all times, and for other purposes than the detection of counterfeits, and will be worth the cost for family use, as an opera glass or microscope.

Fig. 1 shows the Glass as put up for sale. Fig. 2 shows it as a microscope. In using it for this purpose, you must have a good light, and have it shine direct on the object you wish to examine, first placing the object on a piece of white paper; then adjust the glass to the right focus by sliding the smaller section. Fig. 3 shows the section used for examining notes and other things of a like description. Fig. 4 shows it as used for a spy-glass.

These glasses, now being manufactured in Paris, will be furnished as soon as completed with or without the "Detector," by mail, pre-paid, at the following prices:—

Lower Section or Magnifying Portion, \$3.00.

Upper Section combining Microscopic and Telescopic, \$5.00.

Making the whole "Combination Glass" \$8.00.

If only one section is wanted at first, the other portion can be ordered at any future time.

RECOMMENDATIONS FROM MEMBERS OF CONGRESS.

SERGEANT AT ARMS OFFICE,
U. S. HOUSE OF REPRESENTATIVES,
WASHINGTON, D. C., Dec. 1st, 1866. }

LABAN HEATH, ESQ., has spent much time and labor in the perfection of his system for the detection of Counterfeit Currency, and if properly encouraged by those most interested, I have no doubt will be able to aid the public materially in driving out of existence the numerous dangerous Counterfeits that are now afloat.

I can cheerfully recommend Mr. Heath as an upright, energetic man.

N. G. ORDWAY,
Sergeant at Arms, U. S. House of Representatives.

I concur in the foregoing recommendation.

CHARLES B. HALL,
Secretary of the Association of Banks for the suppression of Counterfeiting.

BOSTON, MASS.

U. S. HOUSE OF REPRESENTATIVES,
WASHINGTON, D. C., Dec. 1st, 1866. } }

The undersigned having examined the Proof Sheets and Plates of Heath's "Government Detector," concur in the utility of his system, and cheerfully recommend his work.

Hiram Price, President State Bank, Iowa, M. C., 2d Dist., Iowa.
J. B. Grinnell, M. C., 4th Dist., Iowa.

T. W. Ferry, Banker, and M. C., 4th Dist., Michigan.

Charles Upsom, M. C., 2d Dist., Michigan.

Columbus Deleno, President 1st National Bank, Mount Vernon, and M. C., 13th Dist., Ohio.

James M. Ashloy, M. C., 10th Dist., Ohio.

Francis C. LoBlond, M. C., 5th Dist., Ohio.

Sidney Clark, M. C., Kansas.

Delos. R. Ashley, M. C., Nevada.

Thomas N. Stillwell, Cashier 1st National Bank of Anderson, and M. C., 11th Dist., Indiana.

Godlove S. Orth, M. C., 8th Dist., Indiana.

Shelby M. Cullum, M. C., 8th Dist., Illinois.

John Wentworth, M. C., 1st Dist., Illinois.
General H. E. Vale, M. C., 1st Dist., Wisconsin.
Philetus Sawyer, M. C., 5th Dist., Wisconsin.
Henry T. Blow, M. C., 2d Dist., Missouri. .
John Hogan, M. C., 1st Dist., Missouri.
George W. Anderson, M. C., 9th Dist., Missouri.
Ignatius Donnelly, M. C., 2d Dist., Minnesota.
Adam J. Glossbrenner, M. C., 15th Dist., Pennsylvania
Myers Strouse, M. C., 10th Dist., Pennsylvania.
George V. Lawrence, M. C., 21th Dist., Pennsylvania
Edmund Cooper, M. C., 4th Dist., Tennessee.
Samuel McKee, M. C., 9th Dist., Kentucky.
General Lovell H. Rousseau, M. C., 5th Dist., Kentucky.
Charles E. Phelps, M. C., 3d Dist., Maryland.
John L. Thomas, M. C., 2d Dist., Maryland.
John A. Nicholson, M. C., Dover, Delaware.
George Latham, M. C., 2d Dist., Western Virginia.
John F. Starr, M. C., 1st Dist., New Jersey.
William A. Newell, M. C., 2d Dist., New Jersey.
John H. D. Henderson, M. C., Oregon.
D. C. McRae, M. C., California.
Theodore M. Pomroy, M. C., 24th Dist., N. Y., and Chairman
Com. on Banking and Currency.
William E. Dodge, M. C., 8th Dist., New York.
Daniel Morris, M. C., 25th Dist., New York.
John A. Griswold, President Troy City National Bank, and
M. C., 15th Dist., New York.
Calvin T. Hulburd, M. C., 17th Dist., New York.
Hamilton Ward, M. C., 27th Dist., New York.
Henry C. Deering, M. C., 1st Dist., Connecticut.
Augustus Brandegee, M. C., 3d Dist., Connecticut.
James G. Blaine, M. C., 3d Dist., Maine.
Samuel Hooper, M. C., 4th Dist., Massachusetts.
Thomas A. Jencks, M. C., 1st Dist., Rhode Island.
James W. Patterson, M. C., 3d Dist., New Hampshire.
Edward H. Rollins, M. C., 2d Dist., New Hampshire.
Portus Baxter, M. C., 3d Dist., Vermont.
P. W. Hitecock, Delegate in Congress, Nebraska.
W. H. Hooper, " " " Utah. .
Arthur H. Denny, " " " Ter'y of Washington.
Samuel McLean, " " " Montana. .
J. F. Chaves, " " " New Mexico.
John N. Goodwin, " " " Arizona.

RECOMMENDATIONS.

OFFICE OF AMERICAN BANK-NOTE COMPANY, }
BOSTON, June 23, 1864. }

THE "Counterfeit Detector," published by Mr. Heath, is all that it purports to be. The engravings, by which it is illustrated, are the true standard of work to be found on genuine notes. I fully approve of the work.

ISAAC CARY, *Manager.*

SUFFOLK BANK, BOSTON, June 21, 1864.

I HAVE examined the "Counterfeit Detector" just issued by Mr. Laban Heath. The ability to detect Counterfeit and Altered Notes is the result only of experience in the application of fixed rules, which he very clearly explains. I consider it the best work on the subject ever offered to the public.

E. R. RUSSELL, *Foreign Money Teller.*

BANK OF MUTUAL REDEMPTION, }
BOSTON, June 21, 1864. }

I CONSIDER Mr. Heath's "Counterfeit Detector" a valuable work. A study of the rules laid down by him for the detection of Counterfeit and Altered Bank-Notes will enable any person to become a good judge of money.

C. B. BRADBURY, *Supt. Foreign Money Dept.*

FROM BANK OFFICERS.

CHICOOPEE BANK, SPRINGFIELD, Nov. 1, 1864.

I HAVE examined the "Counterfeit Detector," published by L. Heath. I think it is one of the best works ever published, to detect counterfeit money.

I do not hesitate in recommending it to all business men, or persons that handle bank-bills.

LEWIS WARNER, *Teller.*

MANUFACTURERS' AND TRADERS' BANK, }
PORTLAND, June 23, 1864. }

WE consider Mr. Heath's work a valuable aid to any one who will examine the principles of engraving, and compare counterfeit

bills with the true. With this help, careful study and attention will enable most young persons to become good judges of paper currency.

E. GOULD, *Cashier.*

W. H. STEPHENSON, *Cashier Mech. Bank.*

WM. EDW. GOULD, *Cashier Inter'l Bank.*

GEO. C. PETERS, *Teller Canal Bank.*

BANK OF CUMBERLAND, PORTLAND, July 1, 1864.

I HAVE examined the "Counterfeit Detector," published by Mr. Heath, and consider it a very valuable aid in the detection of counterfeit bills.

SAMUEL SMALL, *Cashier.*

FROM CASHIERS OF BANKS IN BANGOR.

TRADERS' BANK, BANGOR, Sept. 20, 1864.

IT concerns every person to know whether the money he is handling every day is counterfeit or genuine.

The idea generally prevails that only the few experienced money dealers and professional experts are capable of distinguishing the good from the bad. But the system taught by Mr. LABAN HEATH establishes the fact that every person may readily acquire the art.

As an aid to the living teacher, I consider the little Manual prepared by Mr. Heath invaluable; and, indeed, its instructions and explanations are so clear and full, and the engraved illustrations so perfect, that its thorough study will enable any person to determine the character of any paper money at sight.

E. TRASK, *Cashier.*

WE fully concur in the foregoing sentiments expressed by Mr. Trask.

WM. J. LORD, Cashier of Veazie Bank.

JOHN WYMAN, " " First National Bank.

M. T. STICKNEY, " " Merchant's Bank.

JOHN S. RICKER, " " Mercantile Bank.

T. S. DODD, " " Konduskeag Bank.

W. H. MILLS, " " Eastern Bank.

W. H. PARSONS, " " Farmer's Bank.

W. S. DENNETT, " " Second National Bank.

NOTICES OF THE PRESS.

THE COUNTERFEIT DETECTOR.—Mr. Laban Heath, teacher of counterfeit detecting, has published a book, describing the method by which counterfeit and altered bank-notes may be known at once. The work has been commended by the Suffolk Bank and Bank of Mutual Redemption in this city, and contains much valuable information, especially for young men who are qualifying themselves to be cashiers in large houses. All parts of genuine notes, with a few exceptions, are engraved by machinery, while nearly all parts of counterfeit notes are engraved by hand, because the machines are too expensive and too cumbersome for a business which has to be carried on in secret, and may at any time be broken up by the police. The machine does its work neatly and exactly; the result of the workman's labors is rough and unfinished, and presents radical blemishes which can be detected by the practised eye. The application of this principle is explained by Mr. Heath, with the aid of illustrations executed by the American Bank Note Company.—*Boston Daily Advertiser.*

DETECTION OF SPURIOUS BANK-NOTES.—An infallible guide to aid in the detection of counterfeit bank-notes has long been desired by business men. Mr. Laban Heath has recently published a little volume which seems to entirely satisfy this want. In compiling this book, he has been favored with engravings from the Bank Note Co., with which he is enabled to give to every merchant and accountant a standard of genuine bank-note engravings, by which he may compare all bills coming into his hands, and readily detect the worthless. This system has received the highest testimonials and therefore is entitled to the greatest confidence.—*Portland Daily Press.*

FROM HUNT'S MERCHANTS' MAGAZINE.

NEW YORK, OCTOBER, 1864.

HEATH'S INFALLIBLE COUNTERFEIT DETECTOR AT SIGHT. The only infallible method of detecting counterfeit, spurious, and altered bank-notes, and applicable to all banks in the United States and Canadas, as now in circulation or that may be issued, with genuine bank-note designs, by the American Bank-Note Co. Boston: LABAN HEATH. 1864.

"ANY reliable method of detecting spurious notes in those days of paper currency, when counterfeiting might almost be said to form a regular business, is a matter of importance to every individual; how much more so is it, when the method is so simple as to be understood by every one who will take the trouble to examine it, and so infallible as to detect the most carefully-prepared counterfeit, even on the first application of the test. Mr. HEATH'S method for detecting bad bills requires no knowledge of the different banks, which are scattered, as thick as blackberries, all over the country; but the fineness of the work is made to tell whether the bill is good or bad. Genuine bank-notes are prepared by one or the other of the great Bank-Note Companies, whose machinery is exceedingly costly, and whose engraving is of the very finest description. No engraving done by hand can equal that done by this machinery, and no counterfeiter would care to invest \$75,000 to \$150,000 in an illegitimate business, which, if discovered,—and on account of the bulk of the machinery it would be difficult to conceal it,—would not only result in a total loss of capital, but subject him, also, to a criminal's punishment. There are, also, ways given to detect altered bills, and the book is illustrated by very beautiful specimens of bank-note engraving. It will be found very useful to those who would rather carry good than bad money in their pockets."

UNITED STATES TREASURY, CURRENCY DEPARTMENT, }
NEW YORK, January 15, 1867. }

I have examined the "Government Counterfeit Detector" published by Mr. Heath, and consider it a very valuable work to familiarize the public in the detection of counterfeits on Government and National Notes.

F. C. FIELD, *Receiving Teller.*

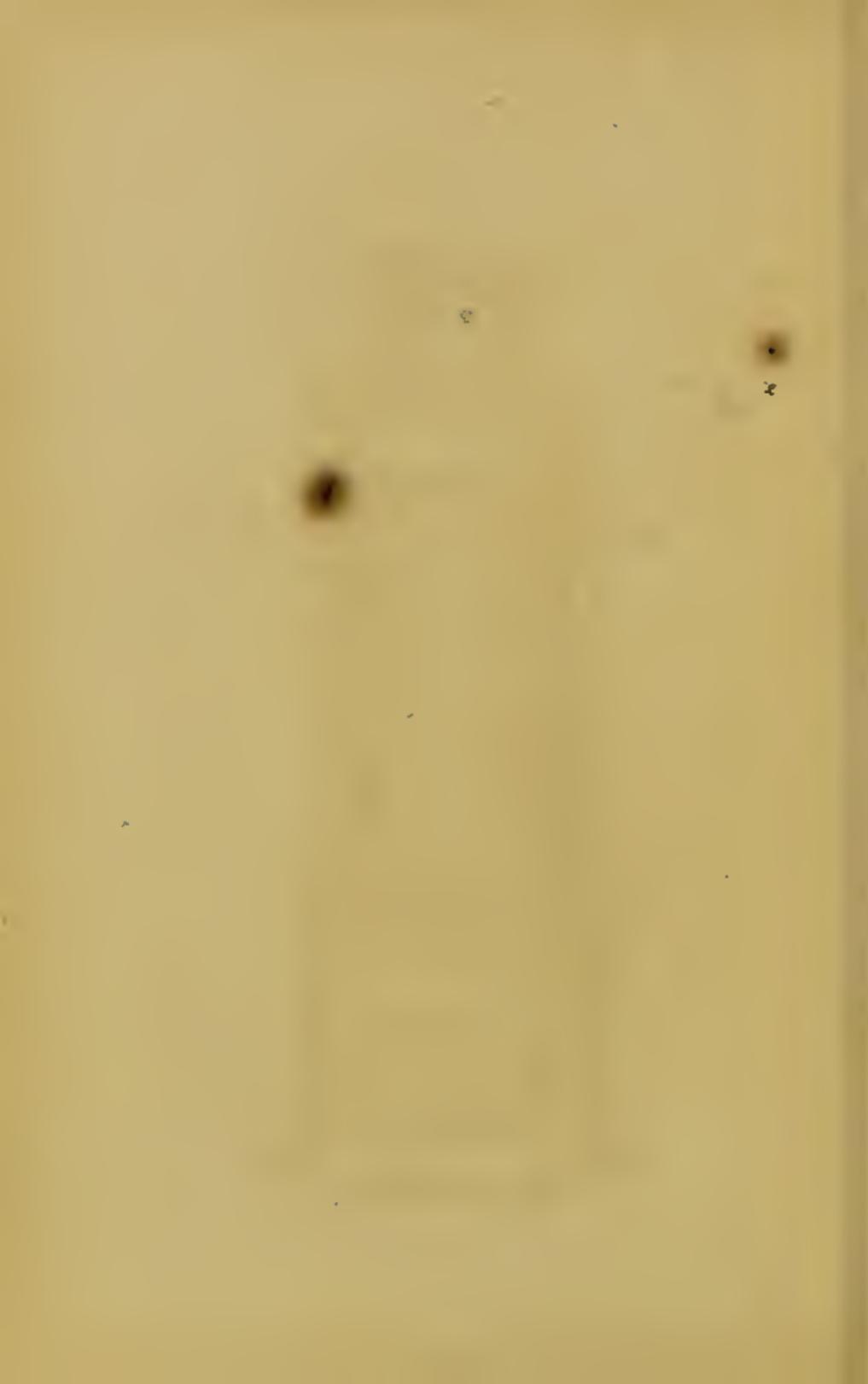


Fig. 1.





Fig. 2.

Fig. 3.

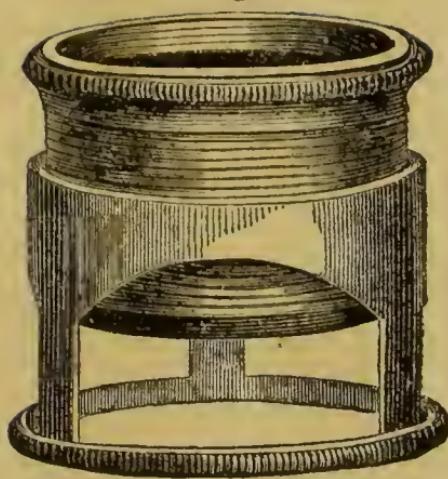
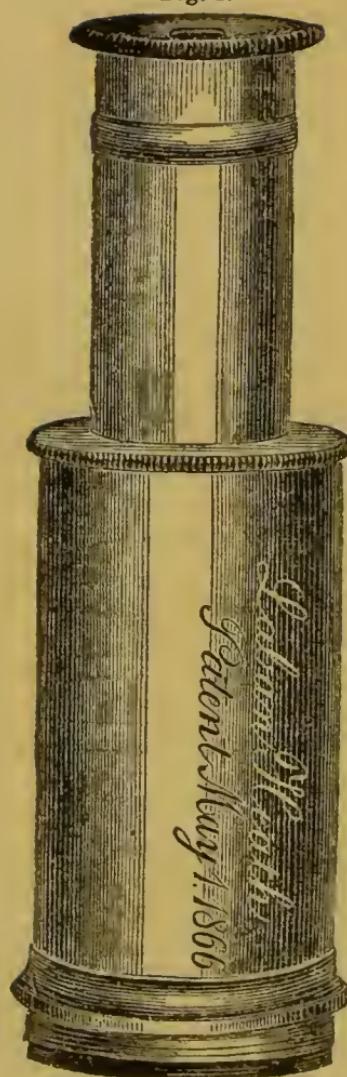


Fig. 4.



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